



PTO/SB/33 (07-05)

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

10017266-1

(HDP#6215-000013/US)

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On _____

Signature _____

Typed or printed name _____

Application Number
09/977,126Filed
October 12, 2001First Named Inventor
Scott T. MILLWARDArt Unit
2115Examiner
S. Suryawanshi

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages of attachments are provided.

I am the

☐ applicant/inventor

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☐ attorney or agent of record.
Registration number. _____

☒ attorney or agent acting under 37 CFR 1.34.
Registration number: 37,275


Signature

Thomas S. Auchterlonie / Reg. No. 37,275

Typed or printed name

703-688-8000

Telephone number

August 30, 2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/977,126
Filing Date: October 12, 2001
Applicant: Scott T. Millward
Group Art Unit: 2115
Examiner: Sureshi SURYAWANSHI
Title: METHOD AND APPARATUS FOR TUNING MULTIPLE
INSTANCES OF KERNEL MODULES
Attorney Docket: 10017266-1
(HDP Ref. No. 6215-000013/US)

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August 30, 2006

**ATTACHMENT TO FORM PTO/SB/33
(DETAILS OF PRE-APPEAL BRIEF REQUEST FOR REVIEW)**

Sir:

Further to the concurrent filing of the attached Notice of Appeal, the following remarks are submitted in connection with the above-identified patent application under the Pilot Program for Pre-Appeal Brief Conference (Off. Gaz. Patent & Trademark Office, Vol. 1296, No. 2, July 12, 2005).

Claims 1-20 are pending. Of these, claims 1, 9 and 15 are independent.

Rejection For Which Conference Is Requested

A Pre-Appeal-Brief Conference is requested to review the rejection¹ of claims 1-20. Appellants disagree with this rejection, for the reasons given previously² and as updated below to address the Examiner's rebuttal arguments.³

As a reminder, the § 103(a) rejection of claims 1-20 is made over a combination of U.S. Patent No. 6,112,301 to Johnson ("the '301 patent") in view of non-patent document "An Extensible Kernel Object Management System" (1991, Conference on Object Oriented Programming Systems Languages and Application; Phoenix, Arizona, United States; pages 247-262) by Yaseen et al. ("Yaseen REF").

¹ The statement of rejection spans pages 2-6 of the Final Office (mailed March 30, 2006).

² See reply by Appellants filed January 12, 2006, pages 7-8.

³ The rebuttal arguments are found on pages 7-8 of the Final Office (mailed March 30, 2006).

TRAVERSAL REASONING

For simplicity, this discussion is couched in terms of independent claim 1, for example.

The Examiner interprets: the '301 patent as if it discloses all elements of claim 1 in general except for the use of object-oriented programming to implement the kernel; and the Yaseen REF as if it teaches applying an object-oriented architecture to a kernel that is analogous to a kernel of an operating system. Thus, the Examiner reasons that it would have been obvious to modify the '301 patent according to the Yaseen REF to obtain a version of the '301 patent having a kernel implemented using object-oriented programming.

The Examiner's characterizations of the claims is a substantial oversimplification with which Appellants disagree. More than merely an operating system implemented with an object-oriented programming has been claimed. Among other things, claim 1 recites, e.g., storing a representation of at least one base tunable having a set of inheritable properties in a memory of the computer, which represents a distinction over the '301 patent. Hence, Appellants disagree with the Examiner's interpretation of the '301 patent.

Appellants also disagree with the Examiner's interpretation of the Yaseen REF, as will be explained.

An operating system has a kernel. In general, for an operating system, the skilled artisan would have understood that the term "kernel" connotes a core component (or set thereof) that is responsible for resource allocation, low-level hardware interfaces, security, etc.⁴ It is only by coincidence that the Yaseen REF refers to a kernel. In no way does the kernel mentioned in the Yaseen REF correspond to what the skilled artisan would understand as an the kernel of an operating system.

Nowhere does the Yaseen REF mention anything that would call to mind an operating system kernel, i.e., there is no mention of resource allocation, low-level hardware interfaces, security etc. On page 249, the Yaseen REF does mention a "low-level interface" as follows (*italicized* emphasis in original, underlined emphasis added):

⁴ For example, see the definition provided by the Free On-Line Dictionary (<http://foldoc.org/>) at URL=<http://foldoc.org/foldoc/foldoc.cgi?kernel>. See also the definitions provided by www.whatis.com at URL=http://searchopensource.techtarget.com/sDefinition/0,290660,sid39_gci212439,00.html, by the Computer, Telephony & Electronics Industry Glossary (www.csgnetwork.com/glossary.html) at URL=<http://www.csgnetwork.com/glossaryk.html#kernel>, by www.NetLingo.com at URL=<http://www.netlingo.com/lookup.cfm?term=kernel>, by support.microsoft.com at URL=<http://support.microsoft.com/default.aspx?scid=%2Fsupport%2Fglossary%2Fk.asp>, etc.

We note that KOMS [i.e., the Kernel Object Management (KOM) System taught by the Yaseen REF] differs from object managers proposed in [CHO85, CAR86a, SKA86, VEL89]. Many of these object managers are more appropriately called storage managers primarily because the structural representation of an object at this level is a low-level (storage) representation (e.g. files, records). Furthermore, operators at this level provide a low-level interface (such as get/put, read/write), based on this storage level representation. Ideally, a storage layer must deal only with abstractions and issues that are relevant to the storage level. Consequently, storage managers should *not* include functionalities such as high-level object representations, high-level operators, and set-oriented retrievals, but rather provide adequate support for such functionalities. Instead, management of objects at a higher level of abstraction should be carried out in a layer above the storage layer - it is this layer that KOMS caters to.

The above-quoted teaches that prior (relative to the Yaseen REF) object managers should be described as storage managers because the structural representation of an object at the storage manager level is that of files, records, etc. In addition, the above-quoted passage describes such storage managers as providing commands such as get, put, read, write. The above-quoted passage then distinguishes the KOM (again, Kernel Object Management) layer taught by the Yaseen REF as being directed to (“caters to”) a layer above the storage layer.

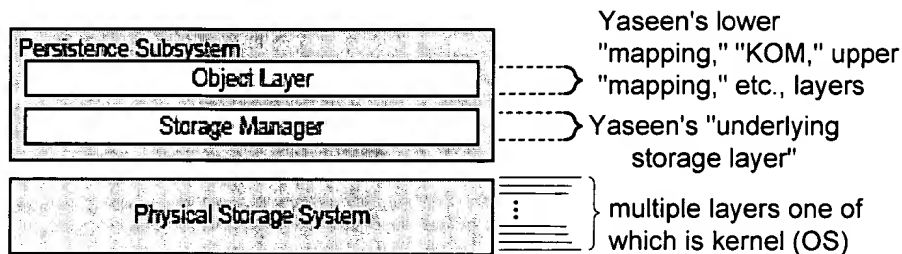
It is noted that the above-quoted passage also describes the storage layer as dealing “only with abstractions.” This is consistent with the above-quoted passage having described the storage layer as providing commands such as get, put, read and write. Such commands manipulate files, which are abstractions of storage locations found on a physical memory device.

The storage layer interacts with other layers to translate the abstractions into physical effects. The kernel of the operating system is one of the other layers that together translate the abstraction of a file into addresses of the storage locations on the physical memory device so that the intended manipulation of data in those address can be achieved. As such, the operating system sits at a level below the storage layer of the Yaseen REF.

To help visualize the relative layer position of the kernel as being underneath the storage layer and the KOM layer taught by the Yaseen REF, Appellants provide the following diagram.⁵ The diagram depicts an object-oriented database structure that includes a two-layer subsystem.

⁵ For sources of the diagram sans Appellants annotations, see URL=
<http://www.objectarchitects.de/ObjectArchitects/orpatterns/orindex.htm> or URL
<http://www.objectarchitects.de/ObjectArchitects/orpatterns/Architecture/architecture.htm>.

Further, Appellants have annotated the diagram to indicate the relative layer positions of the kernel, the storage layer and the KOM layer.



Diagram

In the diagram, a Persistence Subsystem sits on top of a Physical Storage System. Included within the Persistence Subsystem are an Object Layer that sits on top of a Storage Manager (another layer). There are multiple layers in the Physical Storage Subsystem. There can be multiple sub-layers in the Object Layer.

In the diagram, the KOM layer taught by the Yaseen REF corresponds to one of the sub-layers included in the Object Layer. The storage layer taught by the Yaseen REF corresponds to the Storage Manager, and is located underneath the KOM layer. Lastly, the kernel of the operating system corresponds to one of the layers in the Physical Storage System. As such, the kernel is located below Yaseen's storage layer, and even further below Yaseen's KOM layer.

In view of the foregoing discussion, the skilled artisan would have understood that the Yaseen REF is not referring to an operating system kernel when it mentions terminology such as "kernel object," etc. As such, the skilled artisan would not have been motivated to adapt the kernel of an operating system based upon the teaching of the Yaseen REF.

Rather, assuming for the sake of argument that the skilled artisan would have modified the '301 patent according to the Yaseen REF, the result would have been that the non-object-oriented architecture of the kernel mentioned by the '310 patent would have been substituted for one of the layers in the Physical Storage System of the above-printed diagram. The Yaseen REF would not have motivated the skilled artisan to adapt the kernel of the '301 patent, but instead adapt the database 30 of the '301 patent. It is noted that database 30 of the '301 patent is located at an application layer well above the kernel of the '301 patent.

In other words, to the extent that the '301 patent would have been modified according to the Yaseen REF, the result would not have been Appellants' claimed invention. Again, a distinction over the combination of the '301 patent and the Yaseen REF of claim 1 is storing a representation of at least one base tunable having a set of inheritable properties in a memory of the computer. As explained, the Yaseen REF would not have motivated the skilled artisan to adapt the kernel of the '301 patent so that it made use of at least one base tunable having a set of inheritable properties, much less so that it stored a representation of the same in a memory of the computer. The other rejected claims similarly distinguish over the '831 PGPub.⁶

In view of the foregoing discussion, the rejection is improper.

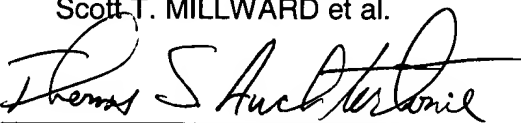
CONCLUSION

In view of the above remarks, Appellants request the Pre-Appeal Brief Conference to find in favor of Appellants' positions and arrange for withdrawal of the above-noted rejection, culminating in the sending of a Notice of Allowance of the pending claims.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-2025 for any additional fees under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

Scott T. MILLWARD et al.

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⁶ Independent claims 9 and 15 recite a similar feature to that of claim 1 discussed above, and hence each at least similarly distinguishes over the combination of the '301 patent and the Yaseen REF. Claims 2-8, 10-14 and 16-20 depend at least indirectly from claims 1, 9 and 15, respectively, and thus at least similarly distinguish over the combination of the '301 patent and the Yaseen REF.